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Inherency

Contention 1 is Inherency:

Wind energy production is stalling in the United States – lack of long term tax subsidies from the federal government deters investors from investing in new projects.

USA Today, 2014
("US wind industry slammed by tax uncertainty, fracking," *USA Today*, April 19, Online: http://www.htrnews.com/viewart/20140420/MAN03/304200220/US-wind-industry-slammed-by-tax-uncertainty-fracking)

Once a booming industry, U.S. wind power saw its growth plummet 92 percent last year as it wrestled with tax uncertainties and cheap natural gas.¶ **The industry is still growing but not nearly as fast**, says a report by the American Wind Energy Association. It added a record 13,131 megawatts of power in 2012 but that fell to only 1,087 MW last year — the lowest level since 2004.¶ **One reason was investors' uncertainty that Congress would renew a federal wind tax subsidy. "People didn't know it would be passed ... so they weren't creating new projects"** early last year, says AWEA's president Tom Kiernan. He says **it takes about nine months to plan a wind farm, so the one-year extension in January 2013 didn't trigger a flurry of new wind farm construction** until the second half of 2013.¶ He expects **this year will see a rebound** in new capacity **but how much will depend on whether Congress extends the tax subsidy, which expired in January**. An extension is pending in the Senate. Retailer IKEA has announced Thursday that it's building a wind farm in Hoopeston, Ill., slated to open in early 2015.¶ The AWEA report is the latest to show the challenges confronting the clean energy sector. **Last year, investments in renewable energy fell 14percent globally and 10 percent in the United States,** according to an analysis by the United Nations Environment Programme. It says **U.S. investments in wind were $13.3 billion, down from $14.5 billion in 2012.**

Contention 1: Energy Poverty Advantage

A. High fuel prices are one of the biggest burdens on impoverished families – lowering the cost of energy should be the first priority in solving poverty.

Holt, President of the Consumer Energy Alliance, 2014

(David, "Energy key to solving income inequality," January 28, Online: http://theenergyvoice.com/energy-key-solving-income-inequality/)

When exploring solutions to income inequality policy makers pay close attention to the costs. The cost of healthcare. The cost of food. The cost of child care. The cost of housing.¶ **What about the cost of energy?¶** According to the Bureau of Labor Statistics, in 2012 **the average U.S. family spent over $4,600** or about 9 percent of their budget to **heat and power their homes and fuel their vehicles. Families in the bottom fifth of income earners spent nearly 33 percent more of their budget on energy costs** than average $2,500 a year or 12% of their annual budget. Reference the chart to the left and you will find that **low-income families spend two and half times more on energy than on health services. Unlike food and housing, consumers cannot shop around for the lowest cost energy. Bargains can be found in the supermarket, but, prices at the pump do not vary from one station to the next. Conservation similarly is not an option when it's a choice between driving to work or saving a gallon of gasoline.¶ A solution to remedying income inequality is tackling rising energy costs.** The U.S. Energy Information Administration projects **the price of electricity will rise 13.6 percent and the price of gasoline by 15.7 percent from now until 2040. Rising global demand, aging and insufficient¶ energy infrastructure and restrictive government policies all play a role in increasing costs**.President Obama has the ability to reverse this trend and lessen the blow to all consumers.¶ Take the shale gas boom for example. Increasing access to private and state lands and sound state regulatory programs have boosted production of natural gas and led to a significant lowering of prices. IHS CERA predicted that the shale revolution lifted household income by more than $1,200 in 2012 through lower energy costs, more job opportunities and greater federal and state tax revenues.¶ Policy makers should promote responsible energy development with the knowledge that it will have a positive affect on even the most vulnerable. The president has the power to act. Permitting energy infrastructure – including the Keystone XL Pipeline, opening new offshore areas to oil and natural gas development, and finalizing the nuclear waste confidence rulemaking, could transform the energy economy.¶ **If policy makers want to take meaningful action to help our nation's low income families, they must pursue actions that help lower – not raise – the cost of energy**.

B. Long term projections prove wind is the cheapest fuel source available to the United States.

Savitz, Vice President for U.S. Oceans and Executive Director of Coast Alliance, 2010

(Jacqueline, "Untapped Wealth: Offshore Wind Can deliver Cleaner, More affordable energy and More Jobs than Offshore Oil," *Oceana Report*, September, Online: http://oceana.org/sites/default/files/reports/Offshore_Wind_Report_-_Final_1.pdf)

As shown in the three previous examples, offshore wind energy can create more electricity, heat more homes or power more¶ cars than the offshore oil and gas that is being considered for¶ production on the East Coast and in the eastern Gulf of Mexico.¶ **Offshore wind energy potential is much greater than that of new¶**

offshore oil and gas and the cost is much lower. Developing the¶ 127 gigawatts of offshore wind energy described above would cost about $36 billion less over 20 years than the estimated cost¶ of producing the economically recoverable oil and natural gas¶ combined. Better still, **unlike the oil and natural gas resources,¶ offshore wind is not finite and**, unlike the oil and gas, **will not¶ become depleted**. However, **the estimated lifetime of an offshore wind turbine is about 20 years** and a new turbine will eventually¶ need to be installed in order to continue to capture wind energy. **Therefore a comparison of costs and benefits over 20 years is an appropriate one.¶** According to MMS, **20 years worth of East Coast offshore oil at¶ $110 per barrel would cost consumers $720 billion, and the natural¶ gas would cost $449 billion. After the East Coast's offshore oil¶ and gas have been extracted, nearly $1.17 trillion will have been transferred from consumers to the oil and gas industry, and then no more energy will be available. Developing the 127 gigawatts of offshore wind energy described above – instead of drilling for oil and gas, would cost about $1.13 trillion, $36 billion less than the oil and gas costs over 20 years**. Notwithstanding the cost savings, as described above the wind investment also produced more energy in every scenario considered. By investing in¶ offshore wind on the East Coast, instead of offshore oil and gas in the areas that were previously protected in the Atlantic and eastern Gulf, **Americans would get more energy for less money.¶ There is another downside to high oil and gas prices. As oil and gas prices increase, the industry can use the proceeds to extract resources that were previously not cost-effective to recover – for instance, deep water oil and gas resources. In turn, the oil and gas companies sell these harder-to-extract resources at higher prices to customers**. Thus, **high oil prices not only increase the cost at the pump, they also increase the risks and potential harm to marine life from more extreme production processes**.

C. We should prioritize small-scale structural impacts – low-probability scenarios have empirically overshadowed everyday suffering in public discourse. This is an independent voter for the Aff.

Scheper-Hughes and Bourgois, Professors of Anthropology at Berkeley and UPeen, 2004

(Nancy and Philippe, Introduction: Making Sense of Violence, in Violence in War and Peace, pg. 19-22)

This large and at first sight "messy" Part VII is central to this anthology's thesis. It encompasses everything from the routinized, bureaucratized, and utterly banal violence of children dying of hunger and maternal despair in Northeast Brazil (Scheper-Hughes, Chapter 33) to elderly African Americans dying of heat stroke in Mayor Daly's version of US apartheid in Chicago's South Side (Klinenberg, Chapter 38) to the racialized class hatred expressed by British Victorians in their olfactory disgust of the "smelly" working classes (Orwell, Chapter 36). In these readings violence is located in the symbolic and social structures that overdetermine and allow the criminalized drug addictions, interpersonal bloodshed, and racially patterned incarcerations that characterize the US "inner city" to be normalized (Bourgois, Chapter 37 and Wacquant, Chapter 39). Violence also takes the form of class, racial, political self-hatred and adolescent self-destruction (Quesada, Chapter 35), as well as of useless (i.e. preventable), rawly embodied physical suffering, and death (Farmer, Chapter 34). **Absolutely central to our approach is a blurring of categories and distinctions between wartime and peacetime violence. Close attention to the "little" violences produced in the structures, habits, and mentalities of everyday life shifts our attention to pathologies of class, race, and gender inequalities.** More important, it interrupts the voyeuristic tendencies of "violence studies" that risk publicly humiliating the powerless who are often forced into complicity with social and individual pathologies of power because suffering is often a solvent of human integrity and dignity. Thus, in this anthology we are positing a violence continuum comprised of a multitude of "small wars and invisible genocides" (see also Scheper- Hughes 1996; 1997; 2000b) conducted in the normative social spaces of public schools, clinics, emergency rooms, hospital wards, nursing homes, courtrooms, public registry offices, prisons, detention centers, and public morgues. **The violence continuum also refers to the ease with which humans are capable of reducing the socially vulnerable into expendable nonpersons and**

assuming the license - even the duty - to kill, maim, or soul-murder. We realize that in referring to a violence and a genocide continuum we are flying in the face of a tradition of genocide studies that argues for the absolute uniqueness of the Jewish Holocaust and for vigilance with respect to restricted purist use of the term genocide itself (see Kuper 1985; Chaulk 1999; Fein 1990; Chorbajian 1999). But we hold an opposing and alternative view that, to the contrary, **it is absolutely necessary to make just such existential leaps in purposefully linking violent acts in normal times to those of abnormal times.** Hence the title of our volume: Violence in War and in Peace. If (as we concede) there is a moral risk in overextending the concept of "genocide" into spaces and corners of everyday life where we might not ordinarily think to find it (and **there is), an even greater risk lies in failing to sensitize ourselves, in misrecognizing proto-genocidal practices and sentiments daily enacted as normative behavior by "ordinary" good-enough citizens. Peacetime crimes**, such as prison construction sold as economic development to impoverished communities in the mountains and deserts of California, or the evolution of the criminal industrial complex into the latest peculiar institution for managing race relations in the United States (Waquant, Chapter 39), **constitute the "small wars and invisible genocides"** to which we refer. This applies to African American and Latino youth mortality statistics in Oakland, California, Baltimore, Washington DC, and New York City. **These are "invisible" genocides not because they are secreted away or hidden from view, but quite the opposite.** As Wittgenstein observed**, the things that are hardest to perceive are those which are right before our eyes and therefore taken for granted.** In this regard, Bourdieu's partial and unfinished theory of violence (see Chapters 32 and 42) as well as his concept of misrecognition is crucial to our task. By including the normative everyday forms of violence hidden in the minutiae of "normal" social practices - in the architecture of homes, in gender relations, in communal work, in the exchange of gifts, and so forth - Bourdieu forces us to reconsider the broader meanings and status of violence, especially the links between the violence of everyday life and explicit political terror and state repression, Similarly, Basaglia's notion of "peacetime crimes" - crimini di pace - imagines a direct relationship between wartime and peacetime violence. **Peacetime crimes suggests the possibility that war crimes are merely ordinary, everyday crimes of public consent applied systematically and dramatically in the extreme context of war.** Consider the parallel uses of rape during peacetime and wartime, or the family resemblances between the legalized violence of US immigration and naturalization border raids on "illegal aliens" versus the US government- engineered genocide in 1938, known as the Cherokee "Trail of Tears." Peacetime crimes suggests that everyday forms of state violence make a certain kind of domestic peace possible. Internal "stability" is purchased with the currency of peacetime crimes, many of which take the form of professionally applied "strangle-holds." Everyday forms of state violence during peacetime make a certain kind of domestic "peace" possible. It is an easy-to-identify peacetime crime that is usually maintained as a public secret by the government and by a scared or apathetic populace. Most subtly, but no less politically or structurally, the phenomenal growth in the United States of a new military, postindustrial prison industrial complex has taken place in the absence of broad-based opposition, let alone collective acts of civil disobedience. **The public consensus is based primarily on a new mobilization of an old fear of the mob, the mugger, the rapist, the Black man, the undeserving poor. How many public executions of mentally deficient prisoners in the United States are needed to make life feel more secure for the affluent?** What can it possibly mean when incarceration becomes the "normative" socializing experience for ethnic minority youth in a society, i.e., over 33 percent of young African American men (Prison Watch 2002). In the end **it is essential that we recognize the existence of a genocidal capacity among otherwise good-enough humans and that we need to exercise a defensive hypervigilance to the less dramatic, permitted, and even rewarded everyday acts of violence that render participation in genocidal acts and policies possible** (under adverse political or economic conditions), perhaps more easily than we would like to recognize. **Under the violence continuum we include, therefore, all expressions of radical social exclusion, dehumanization, depersonal- ization, pseudospeciation, and reification which normalize atrocious behavior and violence toward others. A constant self-mobilization for alarm, a state of constant hyperarousal is, perhaps, a reasonable response to Benjamin's view of late modern history as a chronic "state of emergency"** (Taussig, Chapter 31). We are trying to recover here the classic anagogic thinking that enabled Erving Goffman, Jules Henry, C. Wright Mills, and Franco Basaglia among other mid-twentieth-century radically critical thinkers, to perceive the symbolic and structural relations, i.e., between inmates and patients, between concentration camps, prisons, mental hospitals, nursing homes, and other "total institutions." **Making that decisive move to recognize the continuum of violence allows us to see the capacity and the willingness - if not enthusiasm - of ordinary people, the practical technicians of the social consensus, to enforce genocidal-like crimes**

against categories of rubbish people. There is no primary impulse out of which mass violence and genocide are born, it is ingrained in the common sense of everyday social life. The mad, the differently abled, the mentally vulnerable have often fallen into this category of the unworthy living, as have the very old and infirm, the sick-poor, and, of course, the despised racial, religious, sexual, and ethnic groups of the moment. Erik Erikson referred to "pseudo- speciation" as the human tendency to classify some individuals or social groups as less than fully human - a prerequisite to genocide and one that is carefully honed during the unremark- able peacetimes that precede the sudden, "seemingly unintelligible" outbreaks of mass violence**. Collective denial and misrecognition are prerequisites for mass violence and genocide.** But so are formal bureaucratic structures and professional roles. The practical technicians of everyday violence in the backlands of Northeast Brazil (Scheper-Hughes, Chapter 33), for example, include the clinic doctors who prescribe powerful tranquilizers to fretful and frightfully hungry babies, the Catholic priests who celebrate the death of "angel-babies," and the municipal bureaucrats who dispense free baby coffins but no food to hungry families. **Everyday violence encompasses the implicit, legitimate, and routinized forms of violence inherent in particular social, economic, and political formations.** It is close to what Bourdieu (1977, 1996) means by "symbolic violence," the violence that is often "nus-recognized" for something else, usually something good. Everyday violence is similar to what Taussig (1989) calls "terror as usual." All these terms are meant to reveal a public secret - the hidden links between violence in war and violence in peace, and between war crimes and "peace-time crimes." Bourdieu (1977) finds domination and violence in the least likely places - in courtship and marriage, in the exchange of gifts, in systems of classification, in style, art, and culinary taste- the various uses of culture. Violence, Bourdieu insists, is everywhere in social practice. It is misrecognized because its very everydayness and its familiarity render it invisible. Lacan identifies "rneconnaissance" as the prerequisite of the social. The exploitation of bachelor sons, robbing them of autonomy, independence, and progeny, within the structures of family farming in the European countryside that Bourdieu escaped is a case in point (Bourdieu, Chapter 42; see also Scheper-Hughes, 2000b; Favret-Saada, 1989). Following Gramsci, Foucault, Sartre, Arendt, and other modern theorists of power-vio- lence, Bourdieu treats direct aggression and physical violence as a crude, uneconomical mode of domination; it is less efficient and, according to Arendt (1969), it is certainly less legitimate. While power and symbolic domination are not to be equated with violence - and Arendt argues persuasively that violence is to be understood as a failure of power - violence, as we are presenting it here, is more than simply the expression of illegitimate physical force against a person or group of persons. Rather, we need to understand violence as encompassing all forms of "controlling processes" (Nader 1997b) that assault basic human freedoms and individual or collective survival. Our task is to recognize these gray zones of violence which are, by definition, not obvious. Once again, the point of bringing into the discourses on genocide everyday, normative experiences of reification, depersonalization, institutional confinement, and acceptable death is to help answer the question: What makes mass violence and genocide possible? In this volume we are suggesting **that mass violence is part of a continuum, and that it is socially incremental and often experienced by perpetrators, collaborators, bystanders - and even by victims themselves - as expected, routine, even justified.** The preparations for mass killing can be found in social sentiments and institutions from the family, to schools, churches, hospitals, and the military. **They harbor the** early "warning signs" (Charney 1991), the **"priming"** (as Hinton, ed., 2002 calls it), or the "genocidal continuum" (as we call it) **that push social consensus toward devaluing certain forms of human life** and lifeways from the refusal of social support and humane care to vulnerable "social parasites" (the nursing home elderly, "welfare queens," undocumented immigrants, drug addicts) to the militarization of everyday life (super-maximum-security prisons, capital punishment; the technologies of heightened personal security, including the house gun and gated communities; and reversed feelings of victimization).

D. Affordable energy is a human right – it is a prerequisite to clean water, food, medicine and education.

Tully, Fellow at the Economic and Social Research Council, 2006

(Stephen, "The Human Right to Access Electricity," *The Electricity Journal*, 19:3, April, ScienceDirect)

There are several reasons why the rationale underpinning human rights justifies the inclusion of electricity access. First and foremost, a human¶ rights orientation formally recognizes and operationalizes basic needs. **Energy has become generally accepted as a basic need akin to water or food which further conditions access to other essential services such**

as sanitation, healthcare and education. For example, the U.N. Development Program (UNDP) observed that ''energy is central to the¶ satisfaction of basic nutrition and health needs.''12¶ **Electricity access in particular has become virtually essential to contemporary human survival. Electricity cooks food, powers household appliances, supports a healthy temperature (heating or air conditioning), provides clean water (by powering pumps or desalination treatment), and enables proper health care (refrigerated vaccines, operating theatres, life support systems, electroshock therapy, emergency treatment, or intensive care). Electricity enables agricultural production, processing, and marketing** (thereby **ensuring food security), provides educational aids** (computers, printers and photocopiers**), encourages social cohesion** (participation in cultural productions, entertainment, or recreation) **and generates income-earning opportunities**.

Contention 2 is Climate Change:

A. The United States' relies almost exclusively on fossil fuels for energy – this results in massive amounts of CO2 production, spurring environmental harm.

Savitz, Vice President for U.S. Oceans and Executive Director of Coast Alliance, 2010

(Jacqueline, "Untapped Wealth: Offshore Wind Can deliver Cleaner, More affordable energy and More Jobs than Offshore Oil," *Oceana Report*, September, Online: http://oceana.org/sites/default/files/reports/Offshore_Wind_Report_-_Final_1.pdf)

Most of the energy generated in the United States comes from fuel sources that must be mined, drilled, or extracted from deep within the Earth—each of which comes with its own set of **negative environmental, economic, and sociological side-effects**. In 2009, the United States Department of Energy (DOE) reported that **85 percent of all of the country's energy was coming from fossil fuels like oil, natural gas, and coal**.5 **Continued use of fossil fuels is** very **risky: prices** of these non-renewable resources **are highly volatile**; **reliance on oil creates a dependence on countries that may pose threats to national security; and much of the environmental damage done by mining, drilling, and burning fossil fuels is irreversible.**¶ In addition, **fossil-fuel based energy production has hidden costs, including climate change. The carbon dioxide emissions from the fuels burned to produce energy are warming the planet**, **which results in** a long list of associated impacts, **ranging from melting sea ice and rising sea level to changes in patterns of food production and water availability. Carbon dioxide** from burning fossil fuels **alters the planet's climate systems, and it affects the oceans as well.¶ Ocean acidification,** or the decline in the pH of ocean water due to the absorption of carbon dioxide from the atmosphere, **is a major threat to marine ecosystems and species, as well as about one billion people who rely on the seas for food. Solving the global climate crisis requires a global transformation in energy production and consumption methods, including changes in transportation and electricity generation. The vast majority of our electricity comes from nonrenewable resources that have major environmental impacts,** while they also weaken national security, and have a wide range of economic and social costs.¶ Fortunately **there is time to modernize these systems and minimize these threats to the planet. Clean energy, energy efficiency, and hybrid or electric transportation are all part of a new energy economy that is being built right now.**

Thousands of people are employed in “green collar” jobs relating to clean energy, and billions of dollars are being invested annually in renewable energy. **Even a small fraction of the United States’ renewable energy resources is enough to power the country several times over**, **and one of the least expensive and easiest ways to produce clean energy that will decrease carbon emissions and help save the oceans comes from the seas themselves—offshore wind power**.

B. Failure to incentivize widespread offshore wind production in the US would lock in climate change – the result is extinction.

Thaler, Professor of Energy Policy, Law & Ethics at the University of Maine School of Law and School of Economics, 2012

(Jeff, “FIDDLING AS THE WORLD BURNS: HOW CLIMATE CHANGE URGENTLY REQUIRES A PARADIGM SHIFT IN THE PERMITTING OF RENEWABLE ENERGY PROJECTS,” *Environmental Law,* Volume 42, Issue 4, September, Online: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2148122)

Thus, Part III focuses on one promising technology to demonstrate the flaws in current licensing permitting regimes, and makes concrete recommendations for reform.16 **Wind power generation from onshore** installations **is proven technology**, generates no greenhouse gases, consumes no water,17 is increasingly cost-competitive with most fossil fuel sources,18 and can be deployed relatively quickly in many parts of the United States and the world.19 **Offshore wind** power is a relatively newer technology, especially deep-water floating projects, and **is presently less cost-competitive** than onshore wind.20 However, **because wind speeds are on average about 90% stronger and more consistent over water** than over land, **with higher power densities and lower shear and turbulence**,21 **America’s offshore resources can provide more than its current electricity use**.22 Moreover, **since these** resources **are near many major population centers** that drive electricity demand, **their exploitation would “reduc[e] the need for new high-voltage transmission** from the Midwest and Great Plains to serve coastal lands.”23 Therefore, in light of Part III’s spotlight on literally dozens of different federal (let alone state and local) statutes and their hundreds of regulations standing between an offshore wind project applicant and construction, Part IV makes concrete statutory and regulatory recommendations to more quickly enable the full potential of offshore wind energy to become a reality before it is too late.¶ II. OUR ENERGY USE AND ITS RESULTANT CLIMATE CHANGE IMPACTS¶ A. Overview¶ Greenhouse gases (GHGs) trap heat in the atmosphere.24 **The primary GHG emitted by human activities is** carbon dioxide (**CO2**), **which** in 2010 **represented 84% of all human-sourced GHG emissions** in the U.S.25 “The combustion of fossil fuels to generate electricity is the largest single source of CO2 emissions in the nation, accounting for about 40% of total U.S. CO2 emissions and 33% of total U.S. greenhouse gas emissions in 2009.”26 Beginning with the 1750 Industrial Revolution, atmospheric concentrations of GHGs have significantly increased with greater use of fossil fuels—which has in turn caused our world to warm and the climate to change.27 In fact**, climate change may be the single greatest threat to human society and wildlife**, **as well as to the ecosystems upon which each depends for survival**.28¶ In 1992, the U.S. signed and ratified the United Nations Framework Convention on Climate Change (UNFCCC), the stated objective of which was:¶ [To achieve] stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner.29¶ In 2007, **the** Intergovernmental Panel on Climate Change (**IPCC) concluded that it is “very likely”—at least 90% certain—that humans are responsible for most of the “unequivocal” increases in** globally averaged **temperatures** of the previous fifty years.30¶ **Yet** in the twenty years since the UNFCCC, it also is unequivocal that GHG **levels have not stabilized** but continue to grow, ecosystems and food production have not been able to adapt, and our heavy reliance on fossil fuels perpetuates “dangerous anthropogenic interference with the climate system.”31 Equally unequivocal is that 2011 global temperatures were “the tenth highest on record and [were] higher than any previous year with a La Nina event, which [normally] has a relative cooling influence.”32 The warmest thirteen years of average global temperatures also “have all occurred in the [fifteen] years since 1997.”33 Global emissions of carbon dioxide also jumped 5.9% in 2010—500 million extra tons of

carbon was pumped into the air—"the largest absolute jump in any year since the Industrial Revolution [began in 1750], and the largest percentage increase since 2003."34¶ In order to even have a fifty-fifty chance that the average global temperature will not rise more than 2°C 35 beyond the temperature of 1750,36 our cumulative emissions of CO2 after 1750 must not exceed one trillion tons. However, by mid-October 2012 we had already emitted over 561 billion tons, and at current rates, we will emit the trillionth ton in June 2043.37 The consequence is that members of "the current generation are uniquely placed in human history: the choices we make now—in the next 10–20 years—will alter the destiny of our species (let alone every other species) unalterably, and forever."38 Unfortunately by the end of 2011, the more than 10,000 government and U.N. officials from all over the world attending the Durban climate change conference39 agreed that there is a "significant gap between the aggregate effect of Parties' mitigation pledges in terms of global annual emissions of greenhouse gases by 2020 and aggregate emission pathways consistent with having a likely chance of holding the increase in global average temperature below 2°C or 1.5°C above pre-industrial levels."40¶ What are some of the growing economic, public health, and environmental costs to our country proximately caused41 by our daily burning of fossil fuels? The National Research Council (NRC) recently analyzed the "hidden" costs of energy production and use not reflected in market prices of coal, oil, and other energy sources, or in the prices of electricity and gasoline produced from them.42 For the year 2005 alone, the NRC estimated $120 billion of damages to the U.S. from fossil fuel energy production and use, reflecting primarily health damages from air pollution associated with electricity generation and motor vehicle transportation.43 Of that total, $62 billion was due to coal-fired electricity generation;44 $56 billion from ground transportation (oil-petroleum);45 and over $2.1 billion from electricity generation and heating with natural gas.46 The $120 billion figure did not include damages from climate change, harm to ecosystems and infrastructure, insurance costs, effects of some air pollutants, and risks to national security, which the NRC examined but did not specifically monetize.47 The NRC did, however, suggest that under some scenarios, climate damages from energy use could equal $120 billion.48 Thus, adding infrastructure and ecosystem damages, insurance costs, air pollutant costs, and fossil-fueled national security costs to reach a total of $240 billion, it becomes clear that fossil consumption costs Americans almost $300 billion each year49—a "hidden" number likely to be larger in the future.¶ What does the future hold for a carbon-stressed world? Most scientific analyses presently predict that by 2050 the Earth will warm by 2–2.5°C due to the rising level of GHGs in the atmosphere; at the high-end of projections, the 2050 warming could exceed 4.5°C.50 But those increases are not consistent globally; rather, "[i]n all possible [predicted] outcomes, the warming over land would be roughly twice the global average, and the warming in the Arctic greater still."51¶ For example, the NRC expects that each degree Celsius increase will produce double to quadruple the area burned by wildfires in the western United States, a 5%–15% reduction in crop yields, more destructive power from hurricanes, greater risk of very hot summers, and more changes in precipitation frequency and amounts.52 Globally, a summary of studies predicts that at a 1°C global average temperature rise would reduce Arctic sea ice by an annual average of 15% and by 25% in the month of September;53 at 2°C Europe suffers greater heat waves, the Greenland Ice Sheet significantly melts, and many land and marine species are driven to extinction;54 at 3°C the Amazon suffers severe drought and resultant firestorms that will release significantly more carbon into the atmosphere;55 at 4°C hundreds of billions of tons of carbon in permafrost melts, releasing methane in immense quantities, while the Arctic Ocean ice cap disappears and Europe suffers greater droughts.56¶ To presently assess what a 5°C rise will mean, we must look back into geological time, 55 million years ago, when the Earth abruptly experienced dramatic global warming due to the release of methane hydrates—a substance presently found on subsea continental shelves.57 Fossils demonstrate that crocodiles were in the Canadian high Arctic along with rain forests of dawn redwood, and the Arctic Ocean saw water temperatures of 20°C within 200 km of the North Pole itself.58 And a 6°C average rise takes us even further back—to the end of the Permian period, 251 million years ago—when up to 95% of species relatively abruptly became extinct.59 This may sound extreme, but the International Energy Agency warned this year that the 6°C mark is in reach by 2050 at current rates of fossil fuel usage.60 However, even given the severity of these forecasts, many still question the extent to which our climate is changing,61 and thus reject moving away from our largely fossil-fueled electricity, transportation, and heating sources. Therefore, in this next subsection I provide the latest scientific data documenting specific climate impacts to multiple parts of the U.S. and global daily lives, and the costly consequences that establish the urgency for undertaking the major regulatory reforms I recommend in Part IV of this Article.¶ B. Specific Climate Threats and Consequences¶ 1. When Weather Extremes Increase¶ A 2011 IPCC Special Report predicted that:¶ It is virtually certain [99–100% probability] that increases in the frequency of warm daily temperature extremes and decreases in cold extremes will occur throughout the 21st century on a global scale. It is very likely [90–100% probability] that heat waves will increase in length, frequency, and/or intensity over most land areas. . . . It is very likely

that average sea level rise will contribute to upward trends in extreme sea levels in extreme coastal high water levels.62¶ Similarly, a House of Representatives committee report (ACESA Report) found that "[t]here is a broad scientific consensus that the United States is vulnerable to weather hazards that will be exacerbated by climate change."63 It also found that the "cost of damages from weather disasters has increased markedly from the 1980s, rising to more than 100 billion dollars in 2007. In addition to a rise in total cost, the frequency of weather disasters costing more than one billion dollars has increased."64 In 2011, the U.S. faced the most billion-dollar climate disasters ever, with fourteen distinct disasters alone costing at least $54 billion to our economy.65 In the first six months of 2012 in the U.S., there were more than 40,000 hot temperature records, horrendous wildfires, major droughts, oppressive heat waves, major flooding, and a powerful derecho wind storm, followed in August by Hurricane Isaac ($2 billion damages), and in October by Hurricane Sandy ($50 billion damages).66¶ **The IPCC** Synthesis **identified impacts from growing weather hazards upon public health to include:** more frequent and more intense heat waves; more people suffering **death, disease, and injury from floods, storms, fires, and droughts**; increased cardio-respiratory morbidity and mortality associated with ground-level ozone pollution;

changes in the range of some **infectious disease carriers** spreading, for example, malaria and the West Nile virus; and increased malnutrition and consequent disorders.67 The NRC Hidden Costs of Energy report's damage assessment concluded that the vast majority of the $120 billion per year were based on health damages,68 including an additional 10,000–20,000 deaths per year.69 By 2050, cumulative additional heat-related deaths from unabated climate change are predicted to be roughly 33,000 in the forty largest U.S. cities, with more than 150,000 additional deaths by 2100.70¶ Weather extremes also threaten our **national security**, which **is premised on stability**. In 2007, **the CNA** Corporation's report National Security and the Threat of Climate Change **described climate change as a "threat multiplier for instability**" and warned that:¶ Projected climate change poses a serious threat to America's national security. **The predicted effects** of climate change over the coming decades include extreme weather events, drought, flooding, sea level rise, retreating glaciers, habitat shifts, and the increased spread of life-threatening diseases. These conditions **have the potential to disrupt** our way of **life and** to **force changes in the way we keep ourselves safe and secure.**71¶ The following year, in the first ever U.S. government analysis of climate change security threats, **the National Intelligence Council issued an assessment warning**, in part, that climate **change could** threaten U.S. security by **lead**ing **to political instability**, mass movements of **refugees**, **terrorism, and conflicts over water and other resources**.72¶ 2. When Frozen Water Melts¶ In 2007, the IPCC predicted that sea levels would rise by eight to twenty-four inches above current levels by 2100;73 since then, however, **numerous scientists and studies have suggested that** the 2007 prediction is already out-of-date and that **sea levels will likely rise up to 1.4 meters** (m), or 55 inches, **given upwardly trending CO2 emissions**.74 The 2009 ACESA Report found that rising sea levels are:¶ [A]lready causing inundation of low-lying lands, corrosion of wetlands and beaches, exacerbation of storm surges and flooding, and increases in the salinity of coastal estuaries and aquifers. . . . Further, about one billion people live in areas within 75 feet elevation of today's sea level, including many US cities on the East Coast and Gulf of Mexico, almost all of Bangladesh, and areas occupied by more than 250 million people in China.75¶ This year NASA's Chief Scientist testified to Congress that two-thirds of sea level rise from the last three decades is derived from the Greenland and Antarctic ice sheets and the melting Arctic region; he then warned:¶ [T]he West Antarctic ice sheet (WAIS), an area about the size of the states of Texas and Oklahoma combined . . . contains the equivalent of 3.3 m of sea level, and all that ice rests on a soft-bed that lies below sea level. In this configuration, as warm seawater melts the floating ice shelves, causing them to retreat and the glaciers that feed them to speed up, there is no mechanism to stop the retreat and associated discharge, if warming continues. Thus the WAIS exhibits great potential for substantial and relatively rapid contributions to sea level rise.¶ In Greenland, the situation is not as dramatic, since the bed that underlies most of the ice is not below sea level, and the potential for unabated retreat is limited to a few outlet glaciers. In Greenland, however, summer air temperatures are warmer and closer to ice's melting point, and we have observed widespread accumulation of meltwater in melt ponds on the ice sheet surface.76¶ In the West Antarctic ice sheet region, glacier retreat appears to be widespread, as the air has "warmed by nearly 6°F since 1950."77 As for Greenland's ice sheet, it also is at greater risk than the IPCC had thought.¶ Recent studies with more complete modeling suggest that the warming threshold leading to an essentially ice-free state is not the previous estimate of an additional 3.1°C, but only 1.6°C. Thus, the 2°C target may be insufficient to prevent loss of much of the ice sheet and resultant significant sea level rise.78¶ The ACESA Report also identified the Arctic as "one of the hotspots of global warming"79 because "[o]ver the past 50 years average temperatures in the Arctic have increased as much as 7°F, five times the global average."80 Moreover, in "2007, a record 386,000 square miles of Arctic sea ice melted away, an area larger than Texas and Arizona combined and as big a decline in one year as has occurred over the last decade."81 "Arctic sea ice is melting faster than climate models [had] predict[ed,] and is about [thirty] years ahead" of the 2007 IPCC predictions, thus indicating that the Arctic Ocean could be ice-free in the late summer beginning sometime between 2020 and 2037.82¶ How is the Arctic's plight linked to non-Arctic impacts? "The Arctic region arguably has the greatest concentration of potential tipping elements in the Earth system, including Arctic sea ice, the Greenland ice sheet, North Atlantic deep-water formation regions, boreal forests, permafrost and marine methane hydrates."83 Additionally:¶ Warming of the Arctic region is proceeding at three times the global average . . . . Loss of Arctic sea ice has been tentatively linked to extreme cold winters in Europe . . . . Near complete loss of the summer sea ice, as forecast for the middle of this century, if not before, will probably have knock-on effects for the northern mid-latitudes, shifting the jet streams and storm tracks.84 ¶ Since 1980, sea levels have been rising three to four times faster than the global average

between Cape Hatteras, North Carolina and Boston, Massachusetts.85 “[P]ast and future global warming more than doubles the estimated odds of ‘century’ or worse floods occurring within the next 18 years” for most coastal U.S. locations.86¶ Although land-based glacier melts are not major contributors to sea level rise, they do impact peoples’ food and water supplies. Virtually all of the world’s glaciers, which store 75% of the world’s freshwater, are receding in direct response to global warming, aggravating already severe water scarcity—both in the United States and abroad.87 While over 15% of the world’s population currently relies on glacial melt and snow cover for drinking water and irrigation for agriculture, the IPCC projects a 60% volume loss in glaciers in various regions and widespread reductions in snow cover throughout the twenty-first century.88 Likewise, snowpack has been decreasing, and it is expected that snow cover duration will significantly decrease in eastern and western North America and Scandinavia by 2020 and globally by 2080.89¶ **Climate change thus increases food insecurity by reducing yields of grains,** such as corn and wheat, **through increased water scarcity and intensification of severe hot conditions,** thereby causing corn price volatility to sharply increase.90 Globally, the number of people living in “severely stressed” river basins will increase “by one to two billion people in the 2050s. About two-thirds of global land area is expected to experience increased water stress.”91¶ 3. When Liquid Water Warms¶ Over the past century, oceans, which cover 70% of the Earth’s surface, have been warming. Global sea-surface temperatures have increased about 1.3°F and the heat has penetrated almost two miles into the deep ocean.92 This increased warming is contributing to the destruction of seagrass meadows, causing an annual release back into the environment of 299 million tons of carbon.93 **Elevated atmospheric CO2 concentrations also are leading to higher absorption of CO2 into the upper ocean, making the surface waters more acidic** (lower pH).94 “[O]**cean chemistry currently is changing at least 100 times more rapidly than it has changed** during the 650,000 years preceding our [fossil-fueled] industrial era.”95 **This acidification has serious implications for the calcification rates of organisms and plants living at all levels within the global ocean. Coral reefs**—habitat for over a million marine species—**are collapsing, endangering more than a third of all coral species**.96 Indeed, temperature thresholds for the majority of coral reefs worldwide are expected to be exceeded, causing mass bleaching and complete coral mortality.97 “[**T]he productivity of plankton**, krill, and marine snails, **which compose the base of the ocean food-chain**, [also] **declines as the ocean acidifies**,”98 adversely impacting populations of “everything from whales to salmon”99—species that are also are being harmed by the oceans’ warming.100¶ **Extinctions** from climate change also **are expected to be significant and widespread.** The IPCC Fourth Assessment found that “approximately 20– 30% of plant and animal species assessed so far are likely to be at increased risk of extinction if increases in global average temperature exceed 1.5–2.5°C”101—a range likely to be exceeded in the coming decades. “[R]ecent studies have linked global warming to declines in such [] species as [] blue crabs, penguins, gray whales, salmon, walruses, and ringed seals[; b]ird extinction rates are predicted to be as high as 38[%] in Europe and 72[%] in northeastern Australia, if global warming exceeds 2°C above pre-industrial levels.”102 Between now and 2050, Conservation International estimates that one species will face extinction every twenty minutes;103 the current extinction rate is one thousand times faster than the average during Earth’s history,104 in part because the climate is changing more than 100 times faster than the rate at which many species can adapt.105¶ 4. When Land Dries Out¶ The warming trends toward the Earth’s poles and higher latitudes are threatening people not just from melting ice and sea level rise, but also from the predicted thawing of 30%–50% of permafrost by 2050, and again as much or more of it by 2100.106 “The term permafrost refers to soil or rock that has been below 0°C (32°F) and frozen for at least two years.”107 Permafrost underlies about 25% of the land area in the northern hemisphere, and is “estimated to hold 30[%] or more of all carbon stored in soils worldwide”— which equates to four times more than all the carbon humans have emitted in modern times.108 Given the increasing average air temperatures in eastern Siberia, Alaska, and northwestern Canada, thawing of the Northern permafrost would release massive amounts of carbon dioxide (doubling current atmospheric levels) and methane into the atmosphere.109 Indeed, there are about 1.7 trillion tons of carbon in northern soils (roughly twice the amount in the atmosphere), about 88% of it in thawing permafrost.110 Permafrost thus may become an annual source of carbon equal to 15%–35% of today’s annual human emissions.111 But like seagrass meadows and unlike power plant emissions, we cannot trap or prevent permafrost carbon emissions at the source.¶ Similarly, forests, which “cover about 30[%] of the Earth’s land surface and hold almost half of the world’s terrestrial carbon . . . act both as a source of carbon emissions to the atmosphere when cut, burned, or otherwise degraded and as a sink when they grow.”112 A combination of droughts, fires, and spreading pests, though, are causing economic and environmental havoc: “In 2003 . . . forest fires in Europe, the United States, Australia, and Canada accounted for more global [carbon] emissions than any other source.”113 There have been significant increases in both the number of major wildfires and the area of forests burned in the U.S. and Canada.114 Fires fed by hot, dry weather have killed enormous stretches of forest in Siberia and in the Amazon, which “recently suffered two ‘once a century’ droughts just five years apart.”115¶ Climate change also is exacerbating the geographic spread and intensity of insect infestations. For example:¶ [I]n British Columbia . . . the mountain pine beetle extended its range north and has destroyed an area of soft-wood forest three times the size of Maryland, killing 411 million cubic feet of trees—double the annual take by all the loggers in Canada. Alaska has also lost up to three million acres of old growth forest to the pine beetle.116¶ Over the past fifteen years the spruce bark beetle extended its range into Alaska, where it has killed about 40 million trees more “than any other insect in North America’s recorded history.”117 The drying and burning forests, and other increasingly dry landscapes, also are causing “flora and fauna [to move] to higher latitudes or to higher altitudes in the mountains.”118¶ The human and environmental **costs from failing to promptly reduce** dependence on carbon-dioxide **emitting** sources for electricity, heating, and transportation **are dire and indisputable**.

Rather than being the leader among major countries in per capita GHG emissions, **our country urgently needs to lead** the world in cutting 80% of our emissions by 2050 and using our renewable energy resources and technological advances to help other major emitting countries do the same. However, **significantly increasing our use of carbon-free renewable sources** to protect current and future generations of all species—human and non-human—**requires concrete changes in how our legal system regulates** and permits renewable energy sources. **One source with the potential for significant energy production and comparable elimination of fossil fueled GHGs near** major American and **global population centers is offshore wind**.

Contention 3 is Peak Oil:

A. Peak oil is true – supplies are tapering off, new capture technologies don't increase production, and consumption is skyrocketing – severe economic shocks will bring famine and resource wars within 10 years.

Ahmed, executive director of the Institute for Policy Research & Development, 2013

(Nafeez, "Former BP geologist: peak oil is here and it will 'break economies'," *The Guardian*, December 23, Online: http://www.theguardian.com/environment/earth-insight/2013/dec/23/british-petroleum-geologist-peak-oil-break-economy-recession)

Dr. Miller critiqued the official industry line that global reserves will last 53 years at current rates of consumption, pointing out that **"peaking is the result of declining production rates, not declining reserves." Despite new discoveries and increasing reliance on unconventional oil and gas,** 37 countries are already post-peak, and **global oil production is declining at about 4.1% per year**, or 3.5 million barrels a day (b/d) per year:¶ "**We need new production equal to a new Saudi Arabia every 3 to 4 years to maintain and grow supply... New discoveries have not matched consumption since 1986**. We are drawing down on our reserves, even though reserves are apparently climbing every year. **Reserves are growing due to better technology** in old fields, raising the amount we can recover – **but production is still falling** at 4.1% p.a. [per annum]."¶ Dr. Miller, who prepared annual in-house projections of future oil supply for BP from 2000 to 2007, refers to this as the "ATM problem" – "more money, but still limited daily withdrawals." As a consequence: "**Production of conventional liquid oil has been flat since 2008. Growth in liquid supply since then has been largely of natural gas liquids** [NGL]- ethane, propane, butane, pentane - and oil-sand bitumen."¶ Dr. Miller is co-editor of a special edition of the prestigious journal, Philosophical Transactions of the Royal Society A, published this month on the future of oil supply. In an introductory paper co-authored with Dr. Steve R. Sorrel, co-director of the Sussex Energy Group at the University of Sussex in Brighton, they argue that **among oil industry experts "there is a growing consensus that the era of cheap oil has passed and that we are entering a new and very different phase**." They endorse the conservative conclusions of an extensive earlier study by the government-funded UK Energy Research Centre (UKERC):¶ "... **a sustained decline in global conventional production appears probable before 2030 and there is significant risk of this beginning before 2020**... on current evidence the inclusion of tight oil **[shale oil] resources appears unlikely to significantly affect this conclusion,** partly because the resource base appears relatively modest."¶ In fact, increasing dependence on shale could worsen decline rates in the long run:¶ "Greater reliance upon tight oil resources produced using hydraulic fracturing will exacerbate any rising trend in global average decline rates, since these wells have no plateau and decline extremely fast - for example, by 90% or more in the first 5 years."¶ Tar sands will fare similarly, they conclude, noting that "the Canadian oil sands will deliver only 5 mb per day by 2030, which represents less than 6% of the IEA projection of all-liquids production by that date."¶ Despite the cautious projection of global peak oil "before 2020", they also point out that:¶ "Crude oil production grew at approximately 1.5% per year between 1995 and 2005, but then plateaued with more recent increases in liquids supply largely deriving from NGLs, oil sands and tight oil. These trends are expected to continue... Crude oil production is heavily concentrated in

a small number of countries and a small number of giant fields, with approximately 100 fields producing one half of global supply, 25 producing one quarter and a single field (Ghawar in Saudi Arabia) producing approximately 7%. Most of these giant fields are relatively old, many are well past their peak of production, most of the rest seem likely to enter decline within the next decade or so and few new giant fields are expected to be found."¶ "**The final peak is going to be decided by the price - how much can we afford to pay?",** Dr. Miller told me in an interview about his work. "**If we can afford to pay $150 per barrel, we could certainly produce more given a few years of lead time for new developments, but it would break economies again**."¶ Miller argues that **for all intents and purposes, peak oil has arrived as conditions are such that despite volatility, prices can never return to pre-2004 levels**:¶ "**The oil price has risen almost continuously since 2004 to date, starting at $30**. **There was a great spike to $150** and then a collapse in 2008/2009, but it has since climbed to $110 and held there. **The price rise brought a lot of new exploration and development, but these new fields have not actually increased production by very much**, due to the decline of older fields. This is compatible with the idea that we are pretty much at peak today**. This recession is what peak feels like**."¶ Although he is dismissive of shale oil and gas' capacity to prevent a peak and subsequent long decline in global oil production, Miller recognises that there is still some leeway that could bring significant, if temporary dividends for US economic growth - though only as "a relatively short-lived phenomenon":¶ "We're like a cage of lab rats that have eaten all the cornflakes and discovered that you can eat the cardboard packets too. Yes, we can, but... Tight oil may reach 5 or even 6 million b/d in the US, which will hugely help the US economy, along with shale gas. Shale resources, though, are inappropriate for more densely populated countries like the UK, because the industrialisation of the countryside affects far more people (with far less access to alternative natural space), and the economic benefits are spread more thinly across more people. Tight oil production in the US is likely to peak before 2020. There absolutely will not be enough tight oil production to replace the US' current 9 million b/d of imports."¶ In turn, by prolonging global economic recession, high oil prices may reduce demand. Peak demand in turn may maintain a longer undulating oil production plateau:¶ "We are probably in peak oil today, or at least in the foot-hills. Production could rise a little for a few years yet, but not sufficiently to bring the price down; alternatively, continuous recession in much of the world may keep demand essentially flat for years at the $110/bbl price we have today. But we can't grow the supply at average past rates of about 1.5% per year at today's prices."¶ **The fundamental dependence of global economic growth on cheap oil supplies suggests that as we continue into the age of expensive oil and gas, without appropriate efforts to mitigate the impacts and transition to a new energy system, the world faces a future of economic and geopolitical turbulence**:¶ "**In the US, high oil prices correlate with recessions**, although not all recessions correlate with high oil prices. It does not prove causation, but **it is highly likely that when the US pays more than 4% of its GDP for oil,** or more than 10% of GDP for primary energy, **the economy declines as money is sucked into buying fuel instead of other goods and services... A shortage of oil will affect everything in the economy**. I expect **more famine, more drought, more resource wars and a steady inflation in the energy cost of all commodities."**

B. Oil dependence creates multiple scenarios for war – increases the incentive to go to war while short-circuiting barriers to conflict.

Glaser, Professor of Political Science and International Relations at George Washington University, 2011

(Charles, “Reframing Energy Security: How Oil Dependence Influences U.S. National Security,” August, Online: http://depts.washington.edu/polsadvc/Blog%20Links/Glaser_-_EnergySecurity-AUGUST-2011.docx)

Oil dependence could reduce a state’s security if its access to oil is vulnerable to disruption and if oil is necessary for operating the state’s military forces. Vulnerable energy supplies can leave a state open to coercion—recognizing that it is more likely to lose a war, the state has a weaker bargaining position and is more likely to make concessions.[1] Closely related, if war occurs the state is more likely to lose. Conflict that is influenced by this mechanism is not fundamentally over the

oil;[2] rather, when states already have incentives for conflict, the oil vulnerability influences their assessment of military capabilities and in turn the path to war. Recognizing this type of danger during the Cold War, U.S. planning to protect its sea lanes of communication with the Persian Gulf was motivated partly by the importance of insuring the steady flow of oil that was necessary to enable the United States to fight a long war against the Soviet Union in Europe. During the Second World War, Japan's vulnerability to a U.S. oil embargo played an important role in destroying Japan's ability to fight.[3] This type of threat to the U.S. military capabilities is not a serious danger today because the United States does not face a major power capable of severely interrupting its access to key supplies of oil. In contrast, China does face this type of danger because its oil imports are vulnerable to disruption by the U.S. Navy. **Protecting access to oil threatens other states—an access-driven security dilemma The vulnerability of a state's access to oil supplies could reduce its security via a second, more complicated mechanism—if the state's efforts to protect its access to oil threaten another state's security, then this reduced security could in turn reduce the state's own security.** The danger would follow standard security-dilemma logic, but with the defense of oil supply lines replacing the standard focus on protection of territory. In the most extreme case, **a state could try to solve its import vulnerability through territorial expansion. In less extreme cases, the state could deal with its vulnerability by building up military forces required to protect its access to oil, which has the unintended consequence of decreasing its adversary's military capability and signaling that the state's motives are malign, which decreases the adversary's security, which leads the adversary to build up its own military forces.**[4] **Just as protecting a distant ally can require a state to adopt an offensive capability, protecting access to oil can require offensive power-projection capabilities.** Thus, a state's need to protect its access to oil could create a security dilemma that would not otherwise exist. Conflict fueled by this security dilemma need not be over oil or access to oil; **by damaging political relations the security dilemma could prevent the states from resolving political disputes and avoiding the escalation of crises.** Here again, the United States does not currently face this type of danger; this is largely because the military status quo currently favors the United States, which relieves it from having to take provocative actions. In contrast, China's **efforts to protect its access to oil could be more provocative and generate military competition** with the United States. Oil makes territory increasingly valuable In this type of case, a state places greater value on owning territory because the territory contains energy resources that are increasingly valuable. The greater value of territory can increase competition between states, because the benefits of success grow relative to the costs of competition, for example, the costs of arming. For similar reasons, **the greater value of territory increases the probability that crises over territory will lead to war instead of negotiated compromises, as states are more willing to run the risks of fighting**.[5] This type of conflict is the classic resource war, which is the path by which oil is most commonly envisioned leading to conflict.[6] We can also hypothesize that the probability of conflict is greater when territorial boundaries are contested and the political status quo is ambiguous. Because the norm of state sovereignty is now widely held, states are less likely to launch expansionist wars to take other states' territory. However, when boundaries are not settled, states are more likely to compete to acquire territory they value and will compete harder when they value it more.[7] In addition, **unsettled boundaries increase the possibilities for boundedly rational bargaining failures that could lead to war.** There are two basic paths via which a state could become involved in this type of oil conflict. The more obvious is for the state to be a claimant in the dispute and become directly involved in a territorial conflict. The second is likely more important for the United States—**an alliance commitment could draw the state into a resource conflict that initially began between its ally and another state**.[8] **The state would not have energy interests of its own at stake, but intervenes to protect its ally. Along this path, energy plays an important but less direct role in damaging the state's security, because although energy interests fuel the initial conflict, they do not motivate the state's intervention**.[9] A later section explores the possibility of conflict between China and Japan in the East China Sea, with the United States drawn in to protect Japan and consequently involved in a war with China. **When a state's economy depends heavily on oil, severe supply disruptions might do sufficiently large economic damage that the state would use military force to protect its prosperity.** A state this suffers this vulnerability risks not only suffering the damage that could be inflicted by a supply disruption, which might be the by-product of unrelated domestic or international events, but also risks being coerced by an adversary. Consequently, **states will want to be confident that their ability to import oil will be uninterrupted and will pursue policies to ensure secure access**.

C. Those conflicts go nuclear.

Heinberg, Senior Fellow of the Post Carbon Institute & faculty at the New College of California, 2004
(Richard, "Book Excerpt: Powerdown: Options and Actions for a Port-Carbon World," Online: http://www.energybulletin.net/node/2291)

If the leadership of the US continues with current policies, **the next decades will be filled with war, economic crises, and environmental catastrophe. Resource depletion and population pressure are about to catch up with us**, and no one is prepared. The **political elites**, especially in the US, are incapable of dealing with the situation. Their **preferred "solution" is simply to commandeer other nations' resources, using military force.¶ The worst-case scenario would be the general destruction of human civilization and most of the ecological life-support system of the planet**. That is, of course, a breathtakingly alarming prospect. As such, we might prefer not to contemplate it – except for the fact that considerable evidence attests to its likelihood. ¶ **The notion that resource scarcity often leads to increased competition is certainly well founded. This is general true among non-human animals, among which competition for diminishing resources typically leads to aggressive behaviour. ¶ Iraq is actually the nexus of several different kinds of conflict – between consuming nations** (e.g., France and the US); **between western industrial nations and "terrorist" groups; and – most obviously – between a powerful consuming nation and a weaker, troublesome, producing nation. ¶ Politicians may find it easier to persuade their constituents to fight a common enemy than to conserve and share.¶** War is always grim, but **as resources become more scarce and valuable, as societies become more centralized and therefore more vulnerable, and as weaponry becomes more sophisticated and widely dispersed, warfare could become even more destructive that the case during the past century. ¶** By far **the greatest concern for the future of warfare must be the proliferation of nuclear weapons. The US is conducting research into new types of nuclear weapons—bunker busters, small earth-penetrators**, etc. Recent US administrations have enunciated a policy of nuclear first-strike. ¶ Chemical and biological weapons are of secondary concern, although new genetic engineering techniques may enable the creation of highly infectious and antibiotic-resistant "supergerms" cable of singling out specific ethnic groups. ¶ Additionally, **the US has announced its intention to maintain clear military superiority to any potential rival** ("full-spectrum dominance"), **and is actively developing space-based weapons and supersonic drone aircraft capable of destroying targets anywhere on the planet at a moment's notice**. It is also developing an entirely new class of gamma-ray weapons that blur the critical distinction between conventional and nuclear weapons.

Contention 4: Solvency

Thus, we present the following plan:

The United States Federal Government should offer a long-term extension of tax credits to offshore wind energy projects located in U.S. territorial waters.

Contention 4 is Solvency:

Congress can help wind farms overcome cost hurdles by offering investment tax credit and loan guarantees – that will provide an essential boost to transition to renewable energy.

Caperton, Conathan, and Weidman, 2012

(Richard - Director of Clean Energy Investment, Michael - Director of Ocean Policy, and Jackie - a Special Assistant for the Energy Opportunity team at the Center for American Progress, "Encouraging Investment Is Key to U.S. Offshore Wind Development," *Center for American Progress,* Jan 12, Online: http://www.americanprogress.org/issues/green/news/2012/01/12/10951/encouraging-investment-is-key-to-u-s-offshore-wind-development/)

This view is backed by Maryland Gov. Martin O'Malley, but as The Washington Post reported earlier this week, his efforts to make his state a leader in offshore wind appear to be in jeopardy. Monday's article quoted Democratic Del. Dereck E. Davis saying, "**The situation has gotten worse — not better — for offshore wind since the last time it was up for debate**." **So what has changed?** Congress holds the key **The answer lies** in part in NRG Bluewater Wind's fate. NRG was unequivocal in the reasoning behind its decision to cancel its power-purchase agreement. The company's press release stated that it was "unable to find an investment partner." Specifically, NRG placed the blame for this outcome **squarely on the shoulders of Congress: Two aspects of the project critical for success have actually gone backwards: the decisions of Congress to eliminate funding for the Department of Energy's loan guarantee program applicable to offshore wind, and the failure to extend the Federal Investment and Production Tax Credits** … **which have rendered the** Delaware **project both unfinanceable and financially untenable**. While the challenges facing this project are big, they're solvable. As NRG alludes to, targeted, **efficient incentives from the federal government would allow this project to move forward.** The production tax credit **Currently, offshore wind projects are eligible for the production tax credit. This is a credit based on how much electricity a wind turbine generates**, and is currently worth 2.2 cents per kilowatt-hour. Unfortunately, **this credit expires at the end of 2012, and a long-term extension of the credit is uncertain**. CAP has called on Congress to extend the credit for four more years, which will provide needed policy certainty for investors in wind projects. The investment tax credit While NRG Bluewater Wind would clearly benefit from a production tax credit extension, **other incentives may be more useful** for this project. **For onshore wind projects—with relatively predictable performance over the life of the project—the production tax credit is very valuable. For offshore wind, however, the credit is less valuable to the project developer. Because offshore wind turbines are relatively new technology and are deployed in environments that have never been used for energy generation, developers can't predict how much power a turbine will generate as accurately as they can with onshore wind**. Thus,

developers aren't as certain about how big their tax credits will be, which affects the profitability of the project. **Congress could fix this problem by making offshore wind eligible for the investment tax credit. Instead of getting a tax credit as power is generated, the investment tax credit would allow offshore wind developers to get an upfront credit for 30 percent of their initial investment, encouraging more to invest. This is much more useful for technologies with more performance uncertainty—like offshore wind—and would be a smart example of matching the tax code to the unique circumstances facing innovative industries.** Loan guarantees **Uncertainty around offshore wind turbines' operational performance also makes it difficult to finance these projects.** When a bank evaluates a wind farm, it predicts how much power the turbines will produce each year and will only "count" the power that they're extremely confident will be produced. **With an innovative technology like offshore wind, this could mean that only half of the turbines' expected output is "bankable."** This affects whether or not a bank thinks the developer will pay back a loan, and ultimately influences whether or not a bank offers a loan. **This is a significant problem for offshore wind developers. But the federal government can solve this problem by guaranteeing a loan to a project developer. In this case the government agrees to pay back a loan if the developer is unable to. This puts banks at ease** (after all, the U.S. government has a perfect track record of paying back loans) **and will allow financing to flow freely. Congress has two simple ways to create a loan guarantee program for offshore wind. They can create a Clean Energy Deployment Administration, or "Green Bank," which would offer financing tools like loan guarantees for innovative technologies. Or they can allocate funding to cover the cost of new loan guarantees for offshore wind under the existing Department of Energy Loan Guarantee Program. Either way forward would help drive investment in the burgeoning offshore wind industry. Somehow, the bright outlook from just a few years ago—moving the United States toward energy independence—has fogged over despite overwhelming evidence from statewide polls that demonstrates sustained support for proposed projects. Congress has the power to support constituents' interests in the innovative clean energy and economic opportunities offshore wind can produce to move us out of the energy Stone Age and into a sustainable future.**